



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/711,691	11/13/2000	Achim Michael Nuebling	39199-9505	7139
23409	7590	12/15/2003		
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202				
			EXAMINER TRAN, TAM D	
			ART UNIT 2676	PAPER NUMBER 12

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/711,691

Applicant(s)

NUEBLING ET AL.

Examiner

Tam D. Tran

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-63 are rejected under 35 U.S.C. 102(e) as being anticipated by Samuelson et al. (USPN 5361776), hereinafter simply Samuelson.

2. In regard to claim 1, 23, 42, Samuelson teaches a method of a system for displaying physiological patient data from a cyclic physiological waveform, the method comprising the acts of: acquiring (sensing) the physiological patient data from the cyclic physiological waveform, see col.8 lines 61-67, the physiological patient data including a plurality of data points, each data point representing an amplitude of physiological patient data; see col.16 lines 23-30; and displaying the physiological patient data in a three dimensional representation. See col.17 lines 46-50.

3. In regard to claims 2-5, 16-19, 26, 27, 45, 46, Samuelson teaches a method of a system for displaying physiological patient data, wherein it is inherent that physiological data is electrocardiogram data, blood pressure data, cardiac output data, pulse oximetry data. See col.17 lines 44-59.

4. In regard to claims 6, 7, 20, 28, 29, 48, Samuelson teaches a method of a system for displaying physiological patient data, wherein physiological patient data are stored in memory. See col.13 lines 65-68.

Art Unit: 2676

5. In regard to claims 8-10, 12, 21, 30, 37, 38, 49, 56-58, Samuelson teaches a method of a system for displaying physiological patient data, having parsing the physiological patient data into a series of waveforms, median waveforms. See col.16 lines 24-30.

6. In regard to claims 11, 47, 53, 54, 55, Samuelson teaches a method of a system for displaying physiological patient data, wherein the act of displaying further includes the act of assigning a representative X coordinate, Y coordinate, and Z coordinate, to each data point and plotting each data point on the display to produce a three dimensional representation, (the three dimensional display corresponding to X, Y, Z coordinates). See col.16 lines 24-30

7. In regard to claims 13, 14, 22, Samuelson teaches a method of a system for displaying physiological patient data, wherein signal data for displaying has specific range. See col.9 lines 38-44.

8. In regard to claim 15, Samuelson teaches a method of a system for displaying physiological patient data, the method comprising: acquiring the physiological patient data; see col.8 lines 61-67; storing the physiological patient data in a memory array; See col.13 lines 65-68; and displaying the physiological patient data in a three dimensional representation, the act of displaying including parsing the physiological patient data into a series of waveforms such that each successive waveform is plotted in a temporal alignment to allow detection of long term trends in physiological data, see col.16 lines 24-30, the act of parsing each waveform into a series of successive data points such that each data point has a coordinate that is plotted on the display to produce a three dimensional representation, each successive data point having a discrete amplitude, and assigning a color according to the amplitude of the data point if the amplitude is within the relevant range. See Fig.10, col.16 lines 60-67.

Art Unit: 2676

9. In regard to claim 24, 43, Samuelson teaches a method of a system for displaying physiological patient data, and comprising monitors device as the source of physiological patient data. See col.7 lines 35-45.

10. In regard to claim 25, 44, Samuelson teaches a method of a system for displaying physiological patient data, electronic system having sensor or transducer. See col.8 lines 7-10.

11. In regard to claims 31-33, 40, 50-52, 59, Samuelson teaches a method of a system for displaying physiological patient data, and comprising monitors device as the source of physiological patient data; See col.7 lines 35-45. It is inherent that the monitor can be black-white or color and having pixels.

12. In regard to claims 34-36, 39, Samuelson teaches a method of a system for displaying physiological patient data, wherein the electronic system has processor and software. See col.12 lines 5-10.

13. In regard to claim 41, Samuelson teaches a software program for generating a display of physiological data from a cyclic physiological waveform, the software program comprising: (a) a program module for acquiring the physiological patient data; see col.8 lines 61-67; (b) a program module for storing the physiological patient data in a memory array; See col.13 lines 65-68; (c) a program module for displaying a three dimensional representation; (d) a program module for setting the current waveform to the first waveform in the waveform array; see col.16 lines 24-30 ; (e) a program module for providing a Z coordinate counter and initializing the Z coordinate counter to zero; (f) a program module for providing a X coordinate counter and initializing the X coordinate counter to zero; (g) a program module for providing a Y coordinate counter and initializing the Y coordinate counter to zero; (h) a program module for providing a determining

Art Unit: 2676

the pixel color based on the Y coordinate of the data point; (i) a program module for plotting the current data point of the current waveform at the current coordinate in the color determined in (h);(j) a program module for incrementing the X coordinate counter and repeating (h) and (i) until all data points in the current waveform are plotted; and (k) a program module for incrementing the Z coordinate counter and repeating (h)-(j) until all waveforms in the waveform array are plotted; (the three dimensional display corresponding to X, Y, Z coordinates, image being display in an increment (count) process of pixel by pixel along the X coordinate and Y coordinate), see col.16 lines 24-30;

14. In regard to claims 60, 61, Samuelson teaches a method of a system for displaying physiological patient data, wherein the amplitude of the physiological patient data relates to an amplitude of the cyclic physiological waveform. See col.16 lines 50-67.

15. In regard to claim 62, 63, Samuelson teaches a method of a system for displaying physiological patient data, wherein the cyclic physiological waveform represents the physiological parameter. See col.16 lines 50-67.

Response to Arguments

16. Applicant's arguments with respect to claims 1, 15, 23, 42 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicants' argument that the reference fails to show certain features of applicants' invention, it is noted that the features upon which applicants state "the physiological patient data including a plurality of data points, each data point representing an amplitude of physiological patient data", is not recited in the rejected claims filed previously.

Art Unit: 2676

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tam D. Tran** whose telephone number is **703-305-4196**. The examiner can normally be reached on MON-FRI from 8:30 – 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Matthew Bella** can be reached on **703-308-6829**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Art Unit: 2676

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose
telephone number is (703) 306-0377.

Tam Tran

TT
Examiner

Art unit 2676



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600